




←

DIVIDE numbers by 10 if you are getting bigger (same as moving decimal point one space to the left)

MULTIPLY numbers by 10 if you are getting smaller (same as moving decimal point one space to the right)

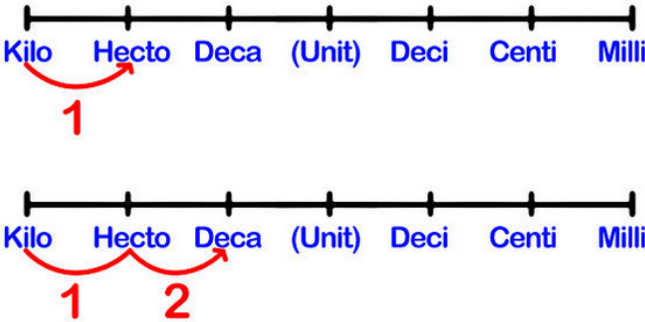
→

Metric Conversion

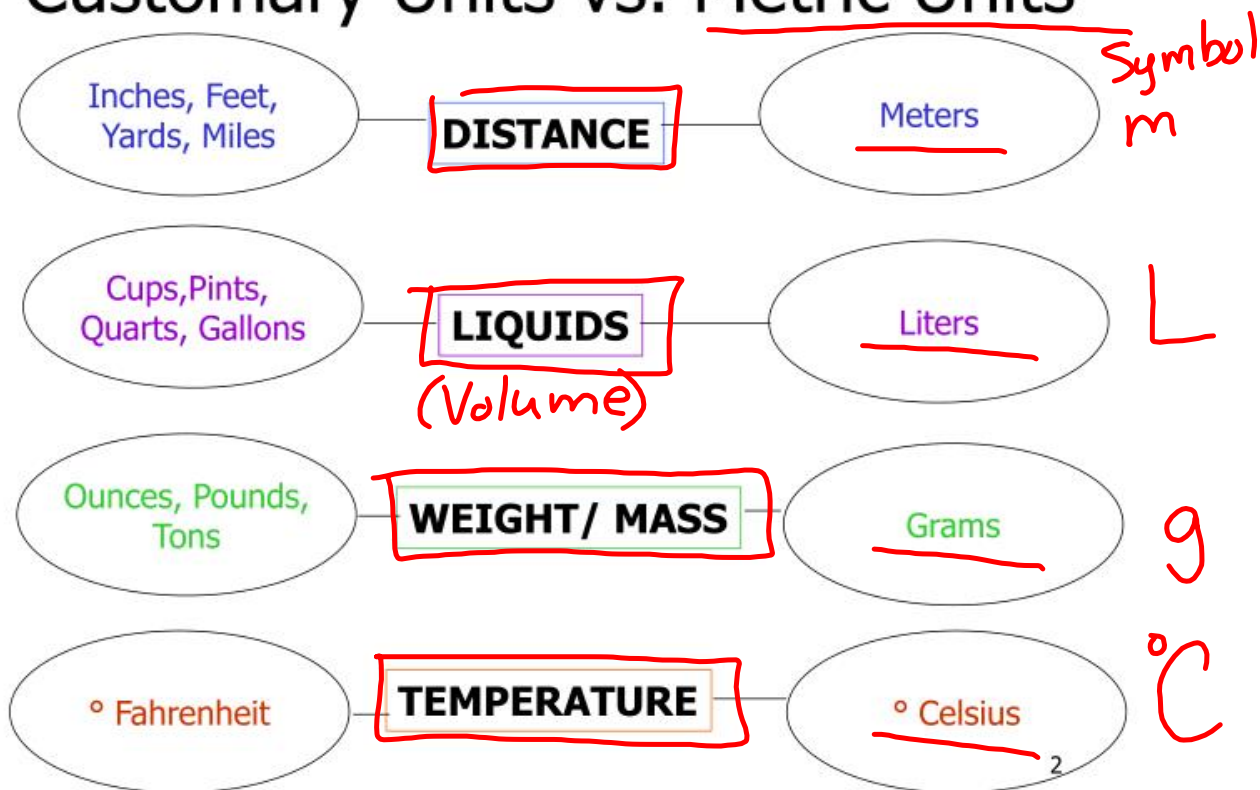
King	Henry	Died	Unusually	Drinking	Chocolate	Milk
Kilo	Hecto	Deca	 * Unit * <b>Meter</b> (length) <b>Liter</b> (liquid volume) <b>Gram</b> (mass/weight) <b>1 unit</b>	Deci	Centi	Milli
10 x 10 x 10 x <b>LARGER</b> than a unit 	10 x 10 x <b>LARGER</b> than a unit	10 x <b>LARGER</b> than a unit		10 x <b>SMALLER</b> than a unit	10 x 10 x <b>SMALLER</b> than a unit	10 x 10 x 10 x <b>SMALLER</b> than a unit 
1 kilo = 1,000 units	1 hecto = 100 units	1 deca = 10 units		10 deci = 1 unit	100 centi = 1 unit	1,000 milli = 1 unit
km = kilometer kL = kiloliter kg = kilogram	hm = hectometer hL = hectoliter	dam = decameter daL = decaliter	m = meter L = liter	dm = decimeter dL = deciliter	cm = centimeter cL = centiliter	mm = millimeter mL = milliliter milligram

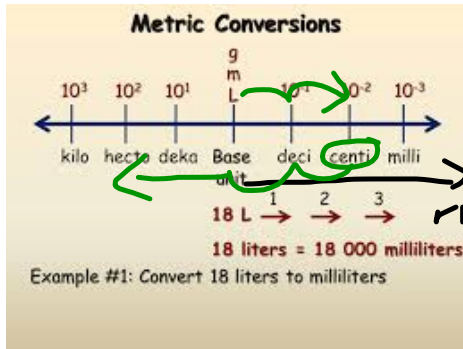
Example: 5 kilo

00,000 milli



## Customary Units vs. Metric Units





## Examples

$$18 \text{ L} = \underline{18000} \text{ mL}$$

18.000

$$18 \text{ g} = \underline{1800} \text{ cg}$$

18.00

$$655 \text{ cm} = \underline{6.55} \text{ m}$$

left 2 places

## Factor Label Method of Conversion

$$100 \text{ cm} = 1 \text{ m} \quad 1 \text{ m} = 100 \text{ cm} \quad \frac{100 \text{ cm}}{1 \text{ m}} = 1 \quad \frac{1 \text{ m}}{100 \text{ cm}} = 1$$

Use conversion factors to systematically move from one unit to the next, cancelling out units on the diagonal in each step.

$$\text{Convert } 18 \text{ m} = \underline{\hspace{2cm}} \text{ cm} \quad 18 \cancel{\text{m}} \left( \frac{100 \text{ cm}}{1 \cancel{\text{m}}} \right) = 1800 \text{ cm}$$

$$563 \text{ mg} = \underline{0.000563} \text{ kg}$$

6 places left

0.000563

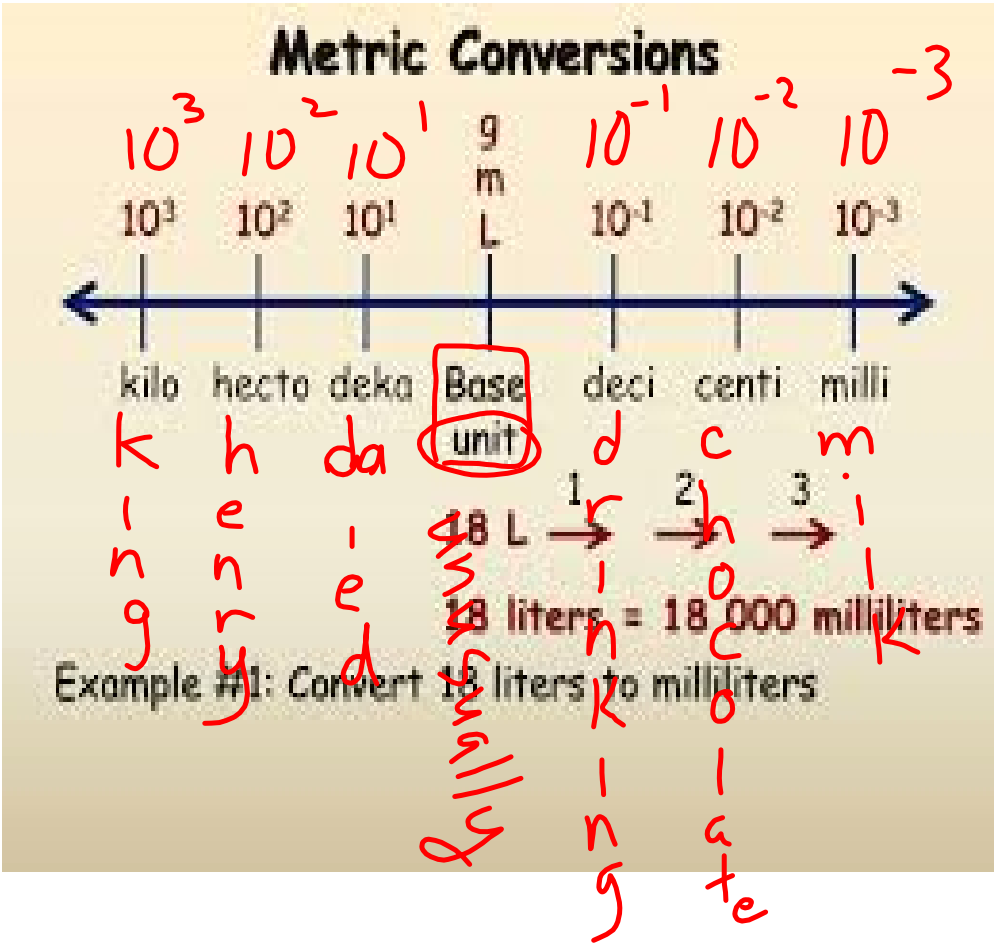
$$3.50 \text{ hm} = \underline{35000} \text{ cm}$$

4 places → right

←

K  
h  
da  
units  
d  
c  
m

→



Write the scientific notation for the following:

The speed of sound is 332 m/s  $3.32 \times 10^2 \text{ m/s}$

The distance b/w the Earth and the Moon is 384 000 000 m  $3.84 \times 10^8 \text{ m}$

The radius of the sun is 696 000 000 m

$6.96 \times 10^8 \text{ m}$   
 $3.84 \times 10^8 \text{ m}$

